



**UNIVERSITA' DEGLI STUDI DI MILANO**  
**PROGRAMME DESCRIPTION - ACADEMIC YEAR 2018/19**  
**BACHELOR**

**Computer Systems and Networks Security - online (Classe L-31)**  
**enrolled since academic year 2017-18**

### **HEADING**

<b>Degree classification - Denomination and code:</b>	L-31 Computer science
<b>Degree title:</b>	Dottore
<b>Length of course:</b>	3 years
<b>Total number of credits required to complete programme:</b>	180
<b>Years of course currently available:</b>	1st , 2nd
<b>Access procedures:</b>	Cap on student, student selection based on entrance test
<b>Course code:</b>	F1A

### **PERSONS/ROLES**

**Head of Study Programme**

Alessandro Rizzi

**Head of Degree Course Coordination Council / Board**

Prof. Alessandro Rizzi

**Degree Course Coordinator**

Prof. Nello Scarabottolo

**Tutors - Faculty**

Chiara Braghin, Alberto Ceselli, Paolo Ceravolo, Sabrina De Capitani di Vimercati, Ruggero Donida Labati, Stefano Ferrari, Giovanni Righini, Nello Scarabottolo

**Degree Course website**

[www.sicurezzaonline.di.unimi.it](http://www.sicurezzaonline.di.unimi.it)

Via Bramante,65 - Crema    <http://sicurezzaonline.di.unimi.it>

### **EXPERIENCE OF STUDY ABROAD AS PART OF THE TRAINING PROGRAM**

The University of Milan supports the international mobility of its students, offering them the opportunity to spend periods of study and training abroad, a unique opportunity to enrich their curriculum in an international context.

**Study and internships abroad**

The education program can be enriched by educational activities abroad both to deepen some topics and as socialization experience in international environments. Within the Erasmus+ program study periods can be taken in over 50 universities in Spain, Portugal, France, Belgium, Switzerland, Germany, Finland, Norway, Sweden, Latvia, Poland, Hungary, Czech Republic, Slovenia, Greece, Romania, Turkey. Courses will be recognized in the personalized study plan. These periods abroad are typically 5-month long and include courses for about 30 CFU, in the area of information and communication technology and related applications. Recognition of these educational activities will be based on the Learning Agreement, to be defined in advance by the student and the Erasmus coordinator at the Computer Science Department before starting the period abroad: course in the learning agreement with passed exams will replace the educational activities of the study plan ("manifesto"), either by covering the same topics or complementing the acquired basic competences. The Erasmus Committee at the Computer Science Department will perform the recognition of CFU obtained abroad and the definition of the personalized study plan. Similarly, stages to prepare the final dissertation are allowed in the same foreign universities. Recognition will be performed by the Department Erasmus Committee.

**How to participate in Erasmus mobility programs**

To gain access to mobility programs for study purposes, lasting 3-12 months, the enrolled students of the University of Milan must attend a public selection that starts usually around the month of February each year through the presentation of specific competition announcements, which contain information on available destinations, respective duration of the mobility, requirements and deadlines for submitting the online application.

The selection, aimed at evaluating the proposed study abroad program of the candidate, knowledge of a foreign language, especially when this is a preferential requirement, and the motivations behind the request, is performed by specially constituted commissions.

Each year, before the expiry of the competition announcements, the University organises information sessions for the specific study course or groups of study courses, in order to illustrate to students the opportunities and participation rules.

To finance stays abroad under the Erasmus + program, the European Union assigns to the selected students a scholarship that - while not covering the full cost of living abroad - is a useful contribution for additional costs as travel costs or greater cost of living in the country of destination.

The monthly amount of the communitarian scholarship is established annually at national level; additional contributions may be provided to students with disabilities.

In order to enable students in economic disadvantaged conditions to participate in Erasmus+ program, the University of Milan assigns further additional contributions; amount of this contributions and criteria for assigning them are established from year to year.

The University of Milan promotes the linguistic preparation of students selected for mobility programs, organising every year intensive courses in the following languages: English, French, German and Spanish.

The University in order to facilitate the organisation of the stay abroad and to guide students in choosing their destination offers a specific support service.

More information in Italian are available on [www.unimi.it](http://www.unimi.it) > Studenti > Studiare all'estero > Erasmus+

For assistance please contact:

Ufficio Accordi e relazioni internazionali

via Festa del Perdono 7 (ground floor)

Tel. 02 503 13501-12589-13495-13502

Fax 02 503 13503

E-mail: [mobility.out@unimi.it](mailto:mobility.out@unimi.it)

Desk opening hour: Monday-friday 9 - 12

<b>1st COURSE YEAR Core/compulsory courses/activities common</b>		
<b>Learning activity</b>	<b>Ects</b>	<b>Sector</b>
COMPUTER ARCHITECTURE	3	L-LIN/12
COMPUTER PROGRAMMING	6	INF/01
CONTINUUM MATHEMATICS	12	(12) MAT/09, (12) MAT/01, (12) MAT/02, (12) MAT/03, (12) MAT/04, (12) MAT/05, (12) MAT/06, (12) MAT/07, (12) MAT/08
CYBERCRIME LEGAL FRAMEWORK	6	IUS/17
DISCRETE MATHEMATICS	6	(6) MAT/09, (6) MAT/01, (6) MAT/02, (6) MAT/03, (6) MAT/04, (6) MAT/05, (6) MAT/06, (6) MAT/07, (6) MAT/08
WEB AND MOBILE PROGRAMMING	6	INF/01
WEB E MOBILE SYSTEM SECURITY	6	INF/01
Total compulsory credits		57
<b>2nd COURSE YEAR Core/compulsory courses/activities common</b>		
<b>Learning activity</b>	<b>Ects</b>	<b>Sector</b>
ALGORITHMS AND DATA STRUCTURES	12	INF/01
COMPUTER NETWORKS	12	INF/01
CRYPTOGRAPHY	6	INF/01
DATABASES	12	INF/01
OPERATING SYSTEMS I	6	INF/01
OPERATING SYSTEMS II	6	ING-INF/05
STATISTICS AND DATA ANALYSIS	6	INF/01
Total compulsory credits		60

<b>3rd COURSE YEAR (available as of academic year 2019/20) Core/compulsory courses/activities common</b>		
<b>Learning activity</b>	<b>Ects</b>	<b>Sector</b>
BIOMETRIC SYSTEMS	6	INF/01
COMPUTER FORENSICS	6	IUS/20
SECURE SOFTWARE DESIGN	6	INF/01
SYSTEM AND NETWORK SECURITY	12	INF/01
Total compulsory credits		30
<b>Further elective courses</b>		
<b>End of course requirements</b>		
ECONOMICAL, ETHICAL, SOCIAL, AND LEGAL ASPECTS OF IT	3	NA
FINAL EXAM	3	NA
FINAL STAGE	15	NA
Total compulsory credits		21

## **COURSE PROGRESSION REQUIREMENTS**

*The course contains the following obligatory or advised prerequisites*

<b>Learning activity</b>	<b>Prescribed foundation courses</b>	<b>O/S</b>
DATABASES	COMPUTER PROGRAMMING	Core/compulsory
OPERATING SYSTEMS I	COMPUTER ARCHITECTURE	Recommended
	COMPUTER PROGRAMMING	Core/compulsory
OPERATING SYSTEMS II	COMPUTER ARCHITECTURE	Recommended
	COMPUTER PROGRAMMING	Core/compulsory
STATISTICS AND DATA ANALYSIS	CONTINUUM MATHEMATICS	Core/compulsory
	DISCRETE MATHEMATICS	Recommended
ALGORITHMS AND DATA STRUCTURES	CONTINUUM MATHEMATICS	Recommended
	DISCRETE MATHEMATICS	Recommended
	COMPUTER PROGRAMMING	Core/compulsory